Amendments to the Claims:

Pursuant to 37 C.F.R. §1.121(c), this listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A method for determining whether a peptide forms a phosphorus-based ester with an organophosphorus agent comprising the steps of:
   (a) contacting the peptide with the agent under conditions permitting formation of a phosphorus-based ester; and
   (b) determining whether a phosphorus-based ester has formed between the peptide and the agent.

2. (Previously Presented) A method of claim 1 for determining whether, among a plurality of peptides, there exist a peptide that forms a phosphorus-based ester with an organophosphorus agent comprising the steps of:
   (a) contacting the plurality of peptides with the agent under conditions permitting formation of a phosphorus-based ester; and
   (b) determining whether a phosphorus-based ester has formed between any of the peptides and the agent, the formation of such an ester indicating that there exists a peptide that forms a phosphorus-based ester with the agent.

3. (Previously Presented) A method of claim 2 for identifying and characterizing a peptide, among a plurality of peptides, that forms a phosphorus-based ester with an organophosphorus agent comprising the steps of:
   (a) contacting the agent with the plurality of peptides under conditions permitting formation of a phosphorus-based ester;

(b) identifying a peptide among the plurality of peptides that forms a phosphorus-based ester with the agent; and

(c) determining the amino acid sequence of the peptide so identifying in step (b), thereby identifying and characterizing the peptide that forms a phosphorus-based ester has with the agent.

4. (Previously Presented) The method of claim 1, wherein the phosphorus-based ester is a phosphate ester.

5. (Currently Amended) The method of claim 1, wherein the phosphorus-based ester is a phosphonate ester.

6. (Previously Presented) The method of claim 1, wherein the phosphorus-based ester is a phosphinate ester.

7. (Previously Presented) The method of claim 1, wherein the peptides are bound to a solid support.

8. (Original) The method of claim 7, wherein the solid support comprises a bead, a microtiter plate, a glass chip or a silicone chip.

9. (Previously Presented) The method of claim 1, wherein the agent is selected from the group consisting of malathion, parathion, paraoxon, schradan, dichlorfenthion, soman, sarin, VX, GB and tabun.

10. (Original) The method of claim 9, wherein the agent is labeled with a detectable marker.

11. (Original) The method of claim 10, wherein the detectable marker is a radioisotope, a fluorescent molecule, biotin or an enzyme.

12. (Original) The method of claim 11, wherein the agent is a nerve agent and the detectable marker is rhodamine.

13. (Original) The method of claim 12, wherein the agent has the structure set forth as analog 1 in Figure 2.

14. (Original) A peptide which forms a phosphorus-based ester with an organophosphorus agent, which peptide comprises a nucleophilic functional group.

15. (Cancelled)

16. (Original) The peptide of claim 14, wherein the length of the peptide is between six and 15 amino acid residues.

17. (Original) The peptide of claim 16, wherein the peptide has a length of six amino acid residues.

18. (Original) The peptide of claim 14, wherein the molecular weight of the peptide is less than 1500 daltons.

19. (Original) The peptide of claim 14, wherein the agent is an organophosphorus insecticide or chemical warfare agent.

20. (Cancelled)

21. (Original) A peptide library, wherein each peptide therein comprises a nucleophilic functional group.

22. (Cancelled)

23. (Cancelled)

24. (Cancelled)

25. (Cancelled)

26. (Cancelled)

27. (Cancelled)

28. (Previously Presented) A composition of matter comprising the peptide of claim 14, and a carrier.

29. (Cancelled)

30. (Previously Presented) The composition of claim 28, wherein the carrier is a foam or an aerosol.

31. (Original) An article of manufacture comprising the peptide of claim 14 affixed to a solid substrate.

32. (Cancelled)

33. (Cancelled)

34. (Original) The article of claim 31, wherein the solid substrate is a filtration component of a gas mask.

35. (Original) A method for reducing the likelihood of injury due to exposure to an organophosphorus agent in a subject exposed to or at risk of exposure to such agent, comprising administering to the subject an effective amount of the peptide of claim 14.

36. (Original) A method for decontaminating an area exposed to an organophosphorus agent comprising introducing to the area an effective amount of the peptide of claim 14.

37. (Cancelled)

38. (Cancelled)